

CLAIMS

1. A method for nonvolatile storage of at least one operating data value of an electric motor (32) which comprises a microprocessor or microcontroller (23), hereinafter called a microprocessor, that controls its commutation, and a nonvolatile memory (74), comprising the following steps:

when the motor (32) is switched on, an old operating data value is transferred from the nonvolatile memory (74) into a volatile memory (97) associated with the microprocessor (23) and saved there as a variable;

the variable is updated by the microprocessor (23) at predetermined points in time;

at intervals of time, the operating data value saved in the nonvolatile memory (74) is replaced by the present value of said variable.

2. The method according to claim 1, wherein the predetermined points in time lie in the time intervals between the commutation operations.

3. The method according to claim 1 or 2, wherein after a reset, the old operating data value is transferred out of the nonvolatile memory (74) into the volatile memory (97) associated with the microprocessor (23) and saved there as a variable.

4. The method according to one or more of the foregoing claims, wherein in the context of a reset operation, the present value of the variable is transferred as the old operating data value into the nonvolatile memory (74).

5. The method according to one or more of the foregoing claims, wherein the operating data value saved in the nonvolatile memory (74) can be polled via a data connection (82).

6. The method according to claim 5, wherein the polling of the operating data value stored in the nonvolatile memory (74) via the data connection (82) is controlled by the microprocessor (23).

7. The method according to one or more of the foregoing claims, wherein

a temperature sensor (152) is associated with the motor; and wherein an extreme value (OD_TM) of the temperature (T) sensed by said temperature sensor (152) is saved as an operating data value (FIG. 8: OD_TMAX) in the nonvolatile memory (74).

8. The method according to one or more of the foregoing claims, wherein the motor (32) comprises an A/D converter with which an analog voltage can be converted into a digital value; and wherein an extreme value (OD_UBM) of the voltage converted by said A/D converter can be saved as an operating data value (FIG. 8: OD_UBMAX) in the nonvolatile memory (74).

9. The method according to one or more of the foregoing claims, wherein a value (OD_COMM) corresponding to the number of commutations is saved as an operating data value (FIG. 8: OD_COMMUT) in the nonvolatile memory (74).

10. The method according to one or more of the foregoing claims, wherein the operating period (OD_OH) of the motor (32) is saved, in the manner of an operating hour counter, as an operating data value (FIG. 8: OD_OHO) in the nonvolatile memory (74).

11. The method according to one or more of the foregoing claims, wherein when the motor (32) is started, a plurality of operating data values is loaded from the nonvolatile memory (74) into associated variables of a volatile memory (RAM 97) associated with the microprocessor (23), and are then updated by the microprocessor (23).

12. An electric motor for carrying out a method according to one or more of the foregoing claims.

13. The electric motor according to claim 12, wherein a data bus (82) is provided which enables access to the data saved in the nonvolatile memory (74) and/or saving of data in said memory (74).

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